Process for preparing carotenoids

Abstract

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The invention relates to a process for preparing carotenoids, which comprises reacting a dialkoxy dialdehyde of the general formula I

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$$O \longrightarrow OR^1$$
 OR^1
 OR^1

with $R^1 = C_1 - C_6 - alkyl$, in a double Wittig condensation with a 15 phosphonium salt of the formula II or in a double Wittig-Horner condensation with a phosphonate of the formula III,

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$$R^2$$

$$P(R^3)_3^+ X^-$$

$$R^4O$$

$$PO(OR^5)_3$$

$$III$$

in which the substituents have independently of one another the following meaning:

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 \mathbb{R}^3 aryl;

 R^4 to R6

40 C₁-C₆-alkyl and

> an anion equivalent of an inorganic or organic acid. x-

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